

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

BEFORE THE BOARD OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE REQUEST FOR AGENCY ACTION
OF WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC,
FOR AN ORDER AUTHORIZING THE FLARING AND VENTING
OF GAS IN EXCESS OF THE AMOUNTS ALLOWED UNDER
UTAH ADMIN. CODE RULE R649-3-20(1.1) FROM THE
WOLVERINE FEDERAL ARAPIEN VALLEY 24-1 AND
PROVIDENCE FEDERAL 24-4 WELLS LOCATED IN THE
W1/2 OF SECTION 24, TOWNSHIP 20 SOUTH,
RANGE 1 EAST, SLM, SANPETE COUNTY, UTAH.

DOCKET NO. 2010-010 CAUSE NO. 269-01

TAKEN AT: Department of Natural Resources
1594 West North Temple, Room 1040
Salt Lake City, Utah

DATE: Wednesday, December 8, 2010

TIME: 4:48 p.m. to 5:18 p.m.

REPORTED BY: Michelle Mallonee, RPR

ATKINSON BAKER COURT REPORTING
JOB #A403309

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<div>1 APPEARANCES</div> <div>2</div> <div>3 BOARD OF OIL, GAS AND MINING:</div> <div>4 Douglas E. Johnson, Chairman</div> <div>5 Ruland J. Gill, Jr.</div> <div>6 Jake Y. Harouny</div> <div>7 James T. Jensen</div> <div>8 Kelly L. Payne</div> <div>9 Samuel C. Quigley</div> <div>10 Jean Semborski (Excused)</div> <div>11</div> <div>12 DIVISION OF OIL, GAS AND MINING:</div> <div>13 John R. Baza, Director</div> <div>14 Dana Dean, Associate Director, Mining</div> <div>15 John Rogers, Associate Director, Oil and Gas</div> <div>16 Jim Springer, Public Information Officer</div> <div>17 Steve Schneider, Administrative Policy Coordinator</div> <div>18 Julie Ann Carter, Secretary to the Board</div> <div>19</div> <div>20</div> <div>21 ASSISTANT ATTORNEYS GENERAL:</div> <div>22 Fred Donaldson - Division Attorney</div> <div>23 Steve Alder - Division Attorney</div> <div>24 Emily Lewis - Division Attorney</div> <div>25 Michael S. Johnson - Board Attorney</div> <div>Page 2</div>	<div>1 I N D E X</div> <div>2 WITNESS</div> <div>3 Edward A. Higuera</div> <div>4 Testimony proffered by Mr. MacDonald</div> <div>5</div> <div>6 Thomas W. Zadick</div> <div>7</div> <div>8 Testimony proffered by Mr. MacDonald</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div> <div>Page 4</div>
<div>1 FOR WOLVERINE GAS & OIL COMPANY OF UTAH, LLC:</div> <div>2 FREDERICK M. MACDONALD, ESQ.</div> <div>3 BEATTY & WOZNIAK</div> <div>4 6925 Union Park Center</div> <div>5 Suite 525</div> <div>6 Cottonwood Heights, Utah 84047-6003</div> <div>7 Telephone: (801) 566-8446</div> <div>8</div> <div>9 FOR THE DIVISION OF OIL, GAS, AND MINING:</div> <div>10 STEVEN F. ALDER, ESQ.</div> <div>11 UTAH ATTORNEY GENERAL'S OFFICE</div> <div>12 Natural Resources Division</div> <div>13 1594 West North Temple</div> <div>14 Suite 300</div> <div>15 Salt Lake City, Utah 84116</div> <div>16 (801) 538-7200</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div> <div>Page 3</div>	<div>1 Docket No. 2010-010 Cause No. 269-01</div> <div>2 Wednesday, December 8, 2010</div> <div>3 (The proceedings began at 4:58 P.M. a.m.)</div> <div>4 CHAIRMAN JOHNSON: This is Agenda Item No. 9,</div> <div>5 Docket No. 2010-010 Cause No. 269-01 - In the Matter of</div> <div>6 the Request for Agency Action of Wolverine Gas and Oil</div> <div>7 Company of Utah, LLC, for an Order Authorizing the</div> <div>8 Flaring and Venting of Gas in Excess of the Amounts</div> <div>9 Allowed under Utah Admin. Code Rule R649-3-20(1.1) from</div> <div>10 the Wolverine Federal Arapien Valley 24-1 and Providence</div> <div>11 Federal 24-4 Wells Located in the W1/2 of Section 24,</div> <div>12 Township 20 South, Range 1 East, SLM, Sanpete County,</div> <div>13 Utah.</div> <div>14 Whenever you are ready, Mr. MacDonald. You are</div> <div>15 representing the petitioner?</div> <div>16 MR. MACDONALD: I am. Fred MacDonald of Beatty</div> <div>17 & Wozniak.</div> <div>18 CHAIRMAN JOHNSON: And Mr. Alder, you are</div> <div>19 representing the Division?</div> <div>20 MR. ALDER: Yes, sir.</div> <div>21 CHAIRMAN JOHNSON: Thank you. Whenever you are</div> <div>22 ready.</div> <div>23 MR. MACDONALD: Thank you, Mr. Chairman.</div> <div>24 First of all, on behalf of Wolverine I'd like to</div> <div>25 thank the Board for agreeing to hear this motion on an</div> <div>Page 5</div>

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<p>1 expedited basis. I know you've had a long day, and we're</p> <p>2 just adding it. But again, I think the testimony will</p> <p>3 reflect why it was important to have it on the expedited</p> <p>4 basis.</p> <p>5 With me today are Mr. Thomas Zadick, who is the</p> <p>6 contract reservoir engineer for Wolverine, and Mr. Edward</p> <p>7 Higuera, the manager of development for Wolverine Oil &</p> <p>8 Gas Corporation, which is the parent of the petitioner</p> <p>9 and it's petroleum engineer. And I'd ask that they be</p> <p>10 sworn in at this time.</p> <p>11 THE REPORTER: Will you raise your right hands,</p> <p>12 please.</p> <p>13 You do solemnly swear the testimony you are</p> <p>14 about to give will be the truth, the whole truth, and</p> <p>15 nothing but the truth so help you God?</p> <p>16 (The witnesses answered in the affirmative.)</p> <p>17 MR. MACDONALD: Mr. Chairman, I would remind the</p> <p>18 Board --</p> <p>19 MR. GILL: Mr. Chairman.</p> <p>20 Mr. MacDonald, just to make sure that we have</p> <p>21 everything in as quickly as we can, rather than go</p> <p>22 through a long question and answer, would it be possible</p> <p>23 and fair to you and your client to just make a proffer of</p> <p>24 what they would say?</p> <p>25 MR. MACDONALD: Certainly, if that's -- I was</p> <p style="text-align: right;">Page 6</p>	<p>1 MR. MACDONALD: Again, as the Board will recall,</p> <p>2 this matter was originally heard in February of last</p> <p>3 year. It's a request for flaring and venting in the</p> <p>4 amounts that are in excess of what is allowed under the</p> <p>5 regulation.</p> <p>6 At the hearing in February, there was some</p> <p>7 discussion that there was not enough data to make a</p> <p>8 proper determination to meet all the criteria required</p> <p>9 under the regulations to allow that flaring and venting.</p> <p>10 And instead, the Board agreed, based on a stipulation</p> <p>11 entered by the Division, BLM, and the petitioner, who</p> <p>12 were the only parties that appeared, that an extension of</p> <p>13 the testing period for six months or cumulative gas</p> <p>14 production of 360,000 mcf from the two wells in question</p> <p>15 was authorized with the idea that the petitioner would</p> <p>16 come back in front of the Board, analyze that data, and</p> <p>17 then hopefully have a better position to meet the</p> <p>18 criteria to allow for the flaring and venting that was</p> <p>19 requested.</p> <p>20 The authorized operations on the two wells were</p> <p>21 conducted this past summer. The wells have produced.</p> <p>22 They are both now producing from the Navajo 1 formation.</p> <p>23 If you recall, one of the wells was in a lower formation</p> <p>24 that was not deemed to be economically viable at the</p> <p>25 time. But the main concern right now is that the Navajo</p> <p style="text-align: right;">Page 8</p>
<p>1 going to offer to the fact that however bare bones the</p> <p>2 Board felt comfortable with.</p> <p>3 MR. GILL: And I'd like to ask the Chairman to</p> <p>4 ask Mr. Alder what he would think of that, and then ask</p> <p>5 the Board.</p> <p>6 CHAIRMAN JOHNSON: Mr. Alder, what would you</p> <p>7 think of that?</p> <p>8 MR. ALDER: I don't have enough information to</p> <p>9 give an opinion. I don't know exactly the nature of the</p> <p>10 request.</p> <p>11 CHAIRMAN JOHNSON: Okay.</p> <p>12 MR. GILL: The idea is he makes the proffer. If</p> <p>13 there's not a question about it, then it would -- from</p> <p>14 other lawyers, and --</p> <p>15 CHAIRMAN JOHNSON: Because of the fact that we</p> <p>16 have two Board members that are going to leave in 15</p> <p>17 minutes, why don't we have Mr. MacDonald proffer that.</p> <p>18 And if there are questions or concerns, then we can go</p> <p>19 into testimony from the witnesses.</p> <p>20 Would that be all right?</p> <p>21 So we'll see how that goes, Mr. Alder.</p> <p>22 MR. ALDER: Yes, that would be fine.</p> <p>23 CHAIRMAN JOHNSON: Play it by ear. That will</p> <p>24 give us all, if nothing else, a good road map of where</p> <p>25 we're heading.</p> <p style="text-align: right;">Page 7</p>	<p>1 1 was the formation of interest, and it was the modeling.</p> <p>2 So both wells, the operations were conducted.</p> <p>3 Mr. Higuera would testify to that. He would testify that</p> <p>4 also the limitation that the Board set of the 360,000</p> <p>5 mcf, based on the current rates that are producing, would</p> <p>6 be reached by December 26 of this year. The six-month</p> <p>7 period for either well would not have been reached by</p> <p>8 that time but the cumulative gas would have at that time.</p> <p>9 Both Mr. Higuera and Mr. Zadick would testify</p> <p>10 that the preliminary analysis of the data so far has</p> <p>11 provided somewhat inconclusive data regarding the nature</p> <p>12 of the oil-water boundary. In other words, the data that</p> <p>13 has been generated -- and it's reflected in the</p> <p>14 exhibits -- shows that what would have been then expected</p> <p>15 to be an active aquifer based on all the data -- knowing</p> <p>16 of the reservoir from the Covenant field as well as the</p> <p>17 analogous Nugget formation -- actually is showing now</p> <p>18 that it may be an inactive aquifer. And it's</p> <p>19 inconsistent with what was expected.</p> <p>20 And one of the ways to try and confirm that</p> <p>21 trend -- if that is, in fact, the case, or if it's just</p> <p>22 an anomaly -- is for an additional testing period. And</p> <p>23 what Mr. Zadick would testify to is that Wolverine</p> <p>24 believes that an additional 60 days of testing or a</p> <p>25 cumulative limitation of 160,000 mcf -- and that's</p> <p style="text-align: right;">Page 9</p>


A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<p>1 reached by taking what the current rate of gas is being 2 produced times 60 days. That's where that limitation 3 came from -- would provide enough additional data to make 4 a determination. And the key here, again, is that the 5 determination of that reservoir characteristic is 6 essential to determine how they proceed with the 7 reservoir development, the options for injection, for 8 example, and all these parameters that are important for 9 the ultimate decision by the Board, again, without 10 getting the Board's authority to go beyond the 11 limitations it set in its March Order. That's why 12 Wolverine is requesting this additional time.</p> <p>13 The emergency comes in from the standpoint that 14 the best test results will be achieved by a continuous 15 testing period. Mr. Zadick actually has a very good 16 analogy of throwing a pebble into a pond and watching the 17 ripples and having them come back. And the problem is if 18 you stop and you shut in the wells, it's like throwing 19 more and more pebbles in. You don't know from which way 20 the waves develop.</p> <p>21 And so the continuity of the test is very 22 important. So that is why they are asking -- they came 23 on expedited basis to allow the continuation of the test 24 so they can go an additional 60 days, take the data and 25 analyze it, and then come before the Board, as was</p> <p style="text-align: right;">Page 10</p>	<p>1 decision. We'll still have a quorum. We can go back to 2 the start. As Hilary Clinton, we can do -- what is it, a 3 recess? -- and start from scratch and have a hearing. 4 Or we, with no objection, of course, from counsel --</p> <p>5 CHAIRMAN JOHNSON: It would be Mr. Zadick that 6 would answer questions?</p> <p>7 MR. MACDONALD: I think it would be Mr. Higuera 8 initially. If the Board will refer to what's been marked 9 as Supplemental Exhibit Y -- or excuse me, X, which is 10 shown on the screen right now. That answers, I think, 11 some of Mr. Harouny's questions.</p> <p>12 But Mr. Higuera, if you would like to respond to 13 Mr. Harouny's questions.</p> <p>14 MR. HIGUERA: Yes. Directly on Exhibit X 15 towards the bottom, the aggregate volume for both wells 16 during this test period is listed there as 25,522 barrels 17 of oil; 248,619 mcf, and 7699 barrels of water. That's 18 through November 14.</p> <p>19 If you go up further on the page, you'll get the 20 individual numbers on a per-well basis.</p> <p>21 MR. HAROUNY: What type of production is that 22 per day? That's for both wells, correct?</p> <p>23 MR. HIGUERA: That is the aggregate volume for 24 both wells.</p> <p>25 MR. HAROUNY: What kind of daily production is</p> <p style="text-align: right;">Page 12</p>
<p>1 originally anticipated to go forward. That would be the 2 proffer.</p> <p>3 The other proffer would be, obviously, the 4 foundational elements for the supplemental exhibits that 5 were submitted to you on these matters. And again, they 6 were prepared by Mr. Higuera or Mr. Zadick or Wolverine 7 personnel under their direction.</p> <p>8 So with that, that's a summary and a proffer. 9 Obviously, there's more technical aspects to it, which 10 I'm sure either of them would be happy to answer. But 11 that would be the proffer of the testimony.</p> <p>12 CHAIRMAN JOHNSON: How do we want to move 13 forward?</p> <p>14 Let me ask Mr. Harouny or Mr. Jensen if they 15 have any specific questions based upon what they've heard 16 on the proffer.</p> <p>17 MR. HAROUNY: I have specific questions on the 18 test, and I have specific questions as to how much oil 19 has been produced so far, the economics of what has been 20 produced, and how much it has been vented at this time.</p> <p>21 CHAIRMAN JOHNSON: Okay.</p> <p>22 Mr. Jensen, any specific questions or concerns? 23 How do we want to proceed?</p> <p>24 MR. GILL: I think that -- let's see if we can't 25 get this question answered in six minutes and then make a</p> <p style="text-align: right;">Page 11</p>	<p>1 that?</p> <p>2 MR. HIGUERA: The daily production on that page, 3 the 24-4 well is making 46 barrels a day, 265 mcf a day, 4 and 43 barrels of water per day. And the Arapien Valley 5 24-1 is producing 221 barrels of oil per day, 2389 mcf, 6 and 6 barrels of water per day. That's as of 7 November 14.</p> <p>8 MR. HAROUNY: So the 24-1 is making a little 9 over 2 million cubic feet of gas a day?</p> <p>10 MR. HIGUERA: Correct.</p> <p>11 MR. HAROUNY: So an additional 60 days, that 12 would equate to approximately 160 --</p> <p>13 MR. HIGUERA: That is correct.</p> <p>14 MR. HAROUNY: -- 160 million cubic feet of gas?</p> <p>15 MR. HIGUERA: 160,000 mcf.</p> <p>16 MR. HAROUNY: Mcf. 160 million cubic feet, I'm 17 sorry.</p> <p>18 MR. MACDONALD: I would like to also point out 19 to the Board, if I may, as far as the proffer goes, 20 additional testimony would be that with the Navajo 1, if 21 you may recall, the inert gasses, it's mainly CO2, it's 22 not hydrogen sulfate. Also, all the safety measures have 23 been in place. The gas has been vented. There has been 24 no issues that have occurred to date. There has been no 25 complaints, or any situation like that.</p> <p style="text-align: right;">Page 13</p>

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<p>1 It's also, to point out for the record, that the 2 Bureau of Land Management -- this is a federal unit in 3 federal lands. The Bureau of Land Management has filed a 4 letter in support of this request for the additional 5 testing period, as well. And that's part of the record. 6 MR. HAROUNY: The gas is CO2? 7 MR. MACDONALD: Ed, do you want to testify to 8 that? 9 MR. HIGUERA: Yes. If you recall, the Navajo 1 10 was primarily CO2 and nitrogen. It was approximately 11 82 percent CO2, and about six percent nitrogen, the rest 12 being the hydrocarbon. 13 CHAIRMAN JOHNSON: Any other questions? 14 MR. HAROUNY: No. So I believe your opinion 15 back then was that this gas is not marketable? 16 MR. HIGUERA: That is correct. 17 MR. QUIGLEY: Is that true for both wells? 18 MR. HIGUERA: The gas is true for both wells on 19 the Navajo 1. If you recall, though, the Arapien Valley 20 24-1 had a Navajo 2 section. And that had a different 21 gas composition. And as we testified in the earlier 22 Board meeting, it had, in our opinion, a limited 23 volume -- extent of reservoir volume. So we focused our 24 efforts on the Navajo 1, which was the larger reservoir 25 and more complex fluid system.</p> <p style="text-align: right;">Page 14</p>	<p>1 just discussed. And we're in support of it for another 2 60 days, with the understanding that there would not be a 3 repeat of that continuance for another 60 days. 4 And other that, we have no additional questions 5 for the witnesses and believe that the evidence that's 6 been provided is sufficient to support the request. 7 CHAIRMAN JOHNSON: Okay. 8 Mr. MacDonald. 9 MR. MACDONALD: Yes, Mr. Chairman. Just as a 10 standard cleaning up situation, we do need to move for 11 admission of those exhibits, based on the proffered 12 testimony and the foundation so that it becomes part of 13 the record. 14 MR. GILL: We can do the cleaning up while we 15 still have a quorum, but... 16 CHAIRMAN JOHNSON: Let me ask real quickly: Is 17 there anyone else present who would like to address the 18 Board on this matter? Okay. 19 MR. JENSEN: Fred, you'll get your exhibits 20 introduced. 21 And I make the motion that we approve the 22 request as requested. And that it's the intent of this 23 Board that this will be the last extension. 24 MR. GILL: Second that one. 25 CHAIRMAN JOHNSON: Okay. Any discussion?</p> <p style="text-align: right;">Page 16</p>
<p>1 MR. HAROUNY: Do you have any idea how much of 2 the 24-1 gas is coming from Navajo 2? 3 MR. HIGUERA: Zero. Navajo 2 has been isolated. 4 So all that gas and all the oil is all Navajo 1 5 production. 6 MR. JENSEN: And that's what you'd propose to 7 continue, the Navajo 1? 8 MR. HIGUERA: Yes. Continue testing both wells 9 as is for the incremental 60 days. 10 MR. GILL: I'd like to talk -- take two minutes 11 to talk to the Board -- just in this room. 12 CHAIRMAN JOHNSON: Can we take a five-minute 13 break? 14 MR. MACDONALD: Sure, Mr. Chairman. 15 CHAIRMAN JOHNSON: Okay. 16 (A break was taken from 5:12 p.m. to 5:15 p.m.) 17 CHAIRMAN JOHNSON: Let's go back on the record. 18 Mr. Alder, unless you would like to proceed with 19 some questions for the witnesses or questions of Division 20 staff or from Division staff, the Board is prepared to 21 make a decision. We would like to give you the 22 opportunity to address whatever you'd like to on this 23 matter. 24 MR. ALDER: The Division reviewed this matter 25 previously and had some of the same information that was</p> <p style="text-align: right;">Page 15</p>	<p>1 All those in favor say "Aye." 2 THE BOARD: Aye. 3 CHAIRMAN JOHNSON: Anyone opposed? 4 So we'll grant the request. 5 Mr. MacDonald, you'll prepare an Order? 6 MR. MACDONALD: I will, Mr. Chairman. 7 CHAIRMAN JOHNSON: If you two need to go, please 8 go ahead. 9 Before we close, though, Mr. Alder, do you have 10 any objections to the exhibits being entered? 11 MR. ALDER: (No audible response.) 12 CHAIRMAN JOHNSON: So Mr. MacDonald, it's 13 Exhibits W, X, Y, Z, BB -- 14 MR. MACDONALD: It would be double A. 15 CHAIRMAN JOHNSON: AA, BB, CC, DD, EE. 16 MR. MACDONALD: Correct. W through double E, 17 inclusive. 18 CHAIRMAN JOHNSON: Okay. 19 Mr. Alder, any objections? 20 MR. ALDER: Mr. MacDonald, do you think there's 21 any additional foundation necessary to make them part of 22 the record? They were prepared by your witnesses? 23 MR. MACDONALD: That was the proffered 24 testimony, is that my witnesses either prepared them or 25 they were prepared under their supervision.</p> <p style="text-align: right;">Page 17</p>

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<div>1 MR. ALDER: No objection.</div> <div>2 CHAIRMAN JOHNSON: Does the Board have any</div> <div>3 objections or questions on any of them?</div> <div>4 Okay. So those will be admitted.</div> <div>5 I think that's it, then. Okay.</div> <div>6 Mr. MacDonald, will you prepare the Order?</div> <div>7 MR. MACDONALD: I will, Mr. Chairman.</div> <div>8 CHAIRMAN JOHNSON: We hope your testing is</div> <div>9 successful.</div> <div>10 MR. MACDONALD: Thank you. Happy Holidays to</div> <div>11 all of you, as well.</div> <div>12 CHAIRMAN JOHNSON: Any other matters?</div> <div>13 MR. GILL: Move to adjourn.</div> <div>14 CHAIRMAN JOHNSON: Does anyone want to address</div> <div>15 the Board on any other matters?</div> <div>16 We have a motion to adjourn. Is there a second?</div> <div>17 MR. PAYNE: Second.</div> <div>18 CHAIRMAN JOHNSON: All those in favor say "Aye."</div> <div>19 THE BOARD: Aye.</div> <div>20 CHAIRMAN JOHNSON: Anyone opposed?</div> <div>21 All right. We're adjourned.</div> <div>22 (The matter was concluded at 5:18 p.m.)</div> <div>23</div> <div>24</div> <div>25</div> <div>Page 18</div>	
<div>1 CERTIFICATE</div> <div>2</div> <div>3 State of Utah)</div> <div>4 ss.</div> <div>5 County of Salt Lake)</div> <div>6 I, Michelle Mallonee, a Registered</div> <div>7 Professional Reporter and Notary Public in and for the</div> <div>8 State of Utah, do hereby certify:</div> <div>9 That the proceedings of said matter was</div> <div>10 reported by me in stenotype and thereafter transcribed</div> <div>11 into typewritten form;</div> <div>12 That the same constitutes a true and correct</div> <div>13 transcription of said proceedings so taken and</div> <div>14 transcribed;</div> <div>15 I further certify that I am not of kin or</div> <div>16 otherwise associated with any of the parties of said</div> <div>17 cause of action, and that I am not interested in the</div> <div>18 event thereof.</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div> <div> Michelle Mallonee, RPR, CSR</div>	

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<p style="text-align: center;">A</p> <p>AA 17:15 achieved 10:14 action 1:4 5:6 19:12 active 9:15 adding 6:2 additional 9:22,24 10:3 10:12,24 13:11,20 14:4 16:4 17:21 address 15:22 16:17 18:14 adjourn 18:13,16 adjourned 18:21 Admin 1:6 5:9 Administrative 2:12 admission 16:11 admitted 18:4 affirmative 6:16 Agency 1:4 5:6 Agenda 5:4 aggregate 12:15,23 agreed 8:10 agreeing 5:25 ahead 17:8 Alder 2:16 3:8 5:18,20 7:4,6,8,21,22 15:18,24 17:9,11,19,20 18:1 allow 8:9,18 10:23 allowed 1:6 5:9 8:4 amounts 1:6 5:8 8:4 analogous 9:17 analogy 10:16 analysis 9:10 analyze 8:16 10:25 Ann 2:12 anomaly 9:22 answer 6:22 11:10 12:6 answered 6:16 11:25 answers 12:10 anticipated 11:1 APPEARANCES 2:1 appeared 8:12 approve 16:21 approximately 13:12 14:10 aquifer 9:15,18 Arapien 1:7 5:10 13:4 14:19 asking 10:22 aspects 11:9 ASSISTANT 2:15 Associate 2:10,11 associated 19:11 ATKINSON 1:20 Attorney 2:16,16,17,17 3:8 ATTORNEYS 2:15 audible 17:11 authority 10:10 authorized 8:15,20 Authorizing 1:5 5:7 Aye 17:1,2 18:18,19 a.m 5:3 A403309 1:20</p>	<p>based 8:10 9:5,15 11:15 16:11 basis 6:1,4 10:23 12:20 Baza 2:10 BB 17:13,15 Beatty 3:2 5:16 began 5:3 behalf 5:24 believe 14:14 16:5 believes 9:24 best 10:14 better 8:17 beyond 10:10 BLM 8:11 Board 1:1 2:3,12,17 5:25 6:18 7:2,5,16 8:1,10,16 9:4 10:9,25 12:8 13:19 14:22 15:11,20 16:18 16:23 17:2 18:2,15,19 Board's 10:10 bones 7:1 bottom 12:15 boundary 9:12 break 15:13,16 Bureau 14:2,3</p> <p style="text-align: center;">C</p> <p>C 2:6 Carter 2:12 case 9:21 cause 1:11 5:1,5 19:12 CC 17:15 Center 3:3 Certainly 6:25 CERTIFICATE 19:1 certify 19:6,11 Chairman 2:4 5:4,18,21 5:23 6:17,19 7:3,6,11 7:15,23 11:12,21 12:5 14:13 15:12,14,15,17 16:7,9,16,25 17:3,6,7 17:12,15,18 18:2,7,8 18:12,14,18,20 characteristic 10:5 City 1:14 3:10 cleaning 16:10,14 client 6:23 Clinton 12:2 close 17:9 Code 1:6 5:9 come 8:16 10:17,25 comes 10:13 comfortable 7:2 coming 15:2 Company 1:5 3:1 5:7 complaints 13:25 complex 14:25 composition 14:21 concern 8:25 concerns 7:18 11:22 concluded 18:22 conducted 8:21 9:2 confirm 9:20 constitutes 19:9 continuance 16:3 continuation 10:23 continue 15:7,8 continuity 10:21 continuous 10:14 contract 6:6 Coordinator 2:12 Corporation 6:8</p>	<p>correct 12:22 13:10,13 14:16 17:16 19:9 Cottonwood 3:4 counsel 12:4 County 1:8 5:12 19:4 course 12:4 COURT 1:20 Covenant 9:16 CO2 14:6,10,11 criteria 8:8,18 CSR 19:17 cubic 13:9,14,16 cumulative 8:13 9:8,25 current 9:5 10:1 C02 13:21</p> <p style="text-align: center;">D</p> <p>D 4:1 daily 12:25 13:2 Dana 2:10 data 8:7,16 9:10,11,12,15 10:3,24 date 1:15 13:24 day 6:1 12:22 13:3,3,4,5 13:6,9 days 9:24 10:2,24 13:11 15:9 16:2,3 DD 17:15 Dean 2:10 December 1:15 5:2 9:6 decision 10:9 12:1 15:21 deemed 8:24 Department 1:2,13 determination 8:8 10:4,5 determine 10:6 develop 10:20 development 6:7 10:7 different 14:20 direction 11:7 Directly 12:14 Director 2:10,10,11 discussed 16:1 discussion 8:7 16:25 Division 2:9,16,16,17 3:7 3:9 5:19 8:11 15:19,20 15:24 Docket 1:11 5:1,5 Donaldson 2:16 double 17:14,16 Douglas 2:4</p> <p style="text-align: center;">E</p> <p>E 2:4 4:1 17:16 ear 7:23 earlier 14:21 East 1:8 5:12 economically 8:24 economics 11:19 Ed 14:7 Edward 4:3 6:6 EE 17:15 efforts 14:24 either 9:7 11:10 17:24 elements 11:4 emergency 10:13 Emily 2:17 engineer 6:6,9 entered 8:11 17:10 equate 13:12 ESQ 3:2,8 essential 10:6 event 19:12</p>	<p>evidence 16:5 exactly 7:9 example 10:8 excess 1:6 5:8 8:4 excuse 12:9 Excused 2:7 Exhibit 12:9,14 exhibits 9:14 11:4 16:11 16:19 17:10,13 expected 9:14,19 expedited 6:1,3 10:23 extension 8:12 16:23 extent 14:23</p> <p style="text-align: center;">F</p> <p>F 3:8 fact 7:1,15 9:21 fair 6:23 far 9:10 11:19 13:19 favor 17:1 18:18 February 8:2,6 federal 1:7,7 5:10,11 14:2,3 feet 13:9,14,16 felt 7:2 field 9:16 filed 14:3 fine 7:22 First 5:24 five-minute 15:12 flaring 1:5 5:8 8:3,9,18 fluid 14:25 focused 14:23 form 19:8 formation 8:22,23 9:1,17 forward 11:1,13 foundation 16:12 17:21 foundational 11:4 Fred 2:16 5:16 16:19 FREDERICK 3:2 front 8:16 further 12:19 19:11</p> <p style="text-align: center;">G</p> <p>gas 1:1,5,6 2:3,9,11 3:1,7 5:6,8 6:8 8:13 9:8 10:1 13:9,14,23 14:6,15,18 14:21 15:2,4 gasses 13:21 GENERAL 2:15 GENERAL'S 3:8 generated 9:13 getting 10:10 Gill 2:4 6:19 7:3,12 11:24 15:10 16:14,24 18:13 give 6:14 7:9,24 15:21 go 6:21 7:18 10:10,24 11:1 12:1,19 15:17 17:7,8 God 6:15 goes 7:21 13:19 going 7:1,16 good 7:24 10:15 grant 17:4</p> <p style="text-align: center;">H</p> <p>hands 6:11 happy 11:10 18:10 Harouny 2:5 11:14,17 12:21,25 13:8,11,14,16 14:6,14 15:1 Harouny's 12:11,13</p>	<p>heading 7:25 hear 5:25 heard 8:2 11:15 hearing 8:6 12:3 Heights 3:4 help 6:15 Higuera 4:3 6:7 9:3,9 11:6 12:7,12,14,23 13:2,10,13,15 14:9,16 14:18 15:3,8 Hilary 12:2 Holidays 18:10 hope 18:8 hopefully 8:17 hydrocarbon 14:12 hydrogen 13:22</p> <p style="text-align: center;">I</p> <p>idea 7:12 8:15 15:1 important 6:3 10:8,22 inactive 9:18 inclusive 17:17 inconclusive 9:11 inconsistent 9:19 incremental 15:9 individual 12:20 inert 13:21 information 2:11 7:8 15:25 initially 12:8 injection 10:7 intent 16:22 interest 9:1 interested 19:12 introduced 16:20 isolated 15:3 issues 13:24 Item 5:4</p> <p style="text-align: center;">J</p> <p>J 2:4 Jake 2:5 James 2:5 Jean 2:7 Jensen 2:5 11:14,22 15:6 16:19 Jim 2:11 JOB 1:20 John 2:10,11 Johnson 2:4,17 5:4,18,21 7:6,11,15,23 11:12,21 12:5 14:13 15:12,15,17 16:7,16,25 17:3,7,12 17:15,18 18:2,8,12,14 18:18,20 Jr 2:4 Julie 2:12</p> <p style="text-align: center;">K</p> <p>Kelly 2:6 key 10:4 kin 19:11 kind 12:25 know 6:1 7:9 10:19 knowing 9:15</p> <p style="text-align: center;">L</p> <p>L 2:6 Lake 1:14 3:10 19:4 Land 14:2,3 lands 14:3 larger 14:24</p>
<p style="text-align: center;">B</p> <p>back 8:16 10:17 12:1 14:15 15:17 BAKER 1:20 bare 7:1 barrels 12:16,17 13:3,4,5 13:6</p>				

A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

<p>lawyers 7:14 leave 7:16 letter 14:4 let's 11:24 15:17 Lewis 2:17 limitation 9:4,25 10:2 limitations 10:11 limited 14:22 listed 12:16 little 13:8 LLC 1:5 3:1 5:7 Located 1:7 5:11 long 6:1,22 lower 8:23</p> <hr/> <p style="text-align: center;">M</p> <hr/> <p>M 3:2 MacDonald 3:2 4:4,6 5:14,16,16,23 6:17,20 6:25 7:17 8:1 12:7 13:18 14:7 15:14 16:8 16:9 17:5,6,12,14,16 17:20,23 18:6,7,10 main 8:25 making 13:3,8 Mallonee 1:17 19:5,17 Management 14:2,3 manager 6:7 map 7:24 March 10:11 marked 12:8 marketable 14:15 matter 1:4 5:5 8:2 15:23 15:24 16:18 18:22 19:7 matters 11:5 18:12,15 mcf 8:14 9:5,25 12:17 13:3,5,15,16 measures 13:22 meet 8:8,17 meeting 14:22 members 7:16 Michael 2:17 Michelle 1:17 19:5,17 million 13:9,14,16 Mining 1:1 2:3,9,10 3:7 minutes 7:17 11:25 15:10 modeling 9:1 months 8:13 motion 5:25 16:21 18:16 move 11:12 16:10 18:13</p> <hr/> <p style="text-align: center;">N</p> <hr/> <p>N 4:1 Natural 1:2,13 3:9 nature 7:9 9:11 Navajo 8:22,25 13:20 14:9,19,20,24 15:2,3,4 15:7 necessary 17:21 need 16:10 17:7 nitrogen 14:10,11 North 1:13 3:9 Notary 19:5 November 12:18 13:7 Nugget 9:17 numbers 12:20</p> <hr/> <p style="text-align: center;">O</p> <hr/> <p>objection 12:4 18:1 objections 17:10,19 18:3 obviously 11:3,9</p>	<p>occurred 13:24 offer 7:1 OFFICE 3:8 Officer 2:11 oil 1:1,5 2:3,9,11 3:1,7 5:6 6:7 11:18 12:17 13:5 15:4 oil-water 9:12 Okay 7:11 11:21 15:15 16:7,18,25 17:18 18:4 18:5 operations 8:20 9:2 opinion 7:9 14:14,22 opportunity 15:22 opposed 17:3 18:20 options 10:7 Order 1:5 5:7 10:11 17:5 18:6 originally 8:2 11:1</p> <hr/> <p style="text-align: center;">P</p> <hr/> <p>page 12:19 13:2 parameters 10:8 parent 6:8 Park 3:3 part 14:5 16:12 17:21 parties 8:12 19:11 Payne 2:6 18:17 pebble 10:16 pebbles 10:19 percent 14:11,11 period 8:13 9:7,22 10:15 12:16 14:5 personnel 11:7 per-well 12:20 petitioner 5:15 6:8 8:11 8:15 petroleum 6:9 place 13:23 Play 7:23 please 6:12 17:7 point 13:18 14:1 Policy 2:12 pond 10:16 position 8:17 possible 6:22 preliminary 9:10 prepare 17:5 18:6 prepared 11:6 15:20 17:22,24,25 present 16:17 previously 15:25 primarily 14:10 problem 10:17 proceed 10:6 11:23 15:18 proceedings 5:3 19:7,9 produced 8:21 10:2 11:19,20 producing 8:22 9:5 13:5 production 8:14 12:21 12:25 13:2 15:5 Professional 19:5 proffer 6:23 7:12,17 11:2 11:3,8,11,16 13:19 proffered 4:4 proffered 4:6 16:11 17:23 proper 8:8 propose 15:6 provide 10:3 provided 9:11 16:6</p>	<p>Providence 1:7 5:10 Public 2:11 19:5 p.m 1:16,16 5:3 15:16,16 18:22</p> <hr/> <p style="text-align: center;">Q</p> <hr/> <p>question 6:22 7:13 8:14 11:25 questions 7:18 11:15,17 11:18,22 12:6,11,13 14:13 15:19,19 16:4 18:3 quickly 6:21 16:16 Quigley 2:6 14:17 quorum 12:1 16:15</p> <hr/> <p style="text-align: center;">R</p> <hr/> <p>R 2:10 raise 6:11 Range 1:8 5:12 rate 10:1 rates 9:5 reached 9:6,7 10:1 ready 5:14,22 real 16:16 recall 8:1,23 13:21 14:9 14:19 recess 12:3 record 14:1,5 15:17 16:13 17:22 refer 12:8 reflect 6:3 reflected 9:13 regarding 9:11 Registered 19:5 regulation 8:5 regulations 8:9 remind 6:17 repeat 16:3 reported 1:17 19:7 Reporter 6:11 19:5 REPORTING 1:20 representing 5:15,19 request 1:4 5:6 7:10 8:3 14:4 16:6,22 17:4 requested 8:19 16:22 requesting 10:12 required 8:8 reservoir 6:6 9:16 10:5,7 14:23,24 Resources 1:2,13 3:9 respond 12:12 response 17:11 rest 14:11 results 10:14 reviewed 15:24 right 6:11 7:20 8:25 12:10 18:21 ripples 10:17 road 7:24 Rogers 2:11 room 1:13 15:11 RPR 1:17 19:17 Ruland 2:4 Rule 1:6 5:9 R649-3-20(1.1) 1:6 5:9</p> <hr/> <p style="text-align: center;">S</p> <hr/> <p>S 2:17 safety 13:22 Salt 1:14 3:10 19:4 Samuel 2:6</p>	<p>Sanpete 1:8 5:12 Schneider 2:12 scratch 12:3 screen 12:10 second 16:24 18:16,17 Secretary 2:12 section 1:8 5:11 14:20 see 7:21 11:24 Semborski 2:7 set 9:4 10:11 showing 9:17 shown 12:10 shows 9:14 shut 10:18 sir 5:20 situation 13:25 16:10 six 8:13 11:25 14:11 six-month 9:6 SLM 1:8 5:12 solemnly 6:13 somewhat 9:11 sorry 13:17 South 1:8 5:12 specific 11:15,17,18,22 Springer 2:11 ss 19:3 staff 15:20,20 standard 16:10 standpoint 10:13 start 12:2,3 State 1:3 19:3,6 stenotype 19:7 Steve 2:12,16 STEVEN 3:8 stipulation 8:10 stop 10:18 submitted 11:5 successful 18:9 sufficient 16:6 Suite 3:3,10 sulfate 13:22 summary 11:8 summer 8:21 supervision 17:25 supplemental 11:4 12:9 support 14:4 16:1,6 sure 6:20 11:10 15:14 swear 6:13 sworn 6:10 system 14:25</p> <hr/> <p style="text-align: center;">T</p> <hr/> <p>T 2:5 take 10:24 15:10,12 taken 1:13 15:16 19:9 talk 15:10,11 technical 11:9 Telephone 3:4 Temple 1:13 3:9 test 10:14,21,23 11:18 12:16 testified 14:21 testify 9:3,3,9,23 14:7 testimony 4:4,6 6:2,13 7:19 11:11 13:20 16:12 17:24 testing 8:13 9:22,24 10:15 14:5 15:8 18:8 thank 5:21,23,25 18:10 thereof 19:12 think 6:2 7:4,7 11:24 12:7,10 17:20 18:5</p>	<p>Thomas 4:5 6:5 throwing 10:16,18 time 1:16 6:10 8:25 9:8,8 10:12 11:20 times 10:2 today 6:5 Township 1:8 5:12 transcribed 19:7,10 transcription 19:9 trend 9:21 true 14:17,18 19:9 truth 6:14,14,15 try 9:20 two 7:16 8:14,20 15:10 17:7 type 12:21 typewritten 19:8</p> <hr/> <p style="text-align: center;">U</p> <hr/> <p>ultimate 10:9 understanding 16:2 Union 3:3 unit 14:2 Utah 1:3,5,6,8,14 3:1,4,8 3:10 5:7,9,13 19:3,6</p> <hr/> <p style="text-align: center;">V</p> <hr/> <p>Valley 1:7 5:10 13:4 14:19 vented 11:20 13:23 venting 1:5 5:8 8:3,9,18 viable 8:24 volume 12:15,23 14:23 14:23</p> <hr/> <p style="text-align: center;">W</p> <hr/> <p>W 4:5 17:13,16 want 11:12,23 14:7 18:14 watching 10:16 water 12:17 13:4,6 waves 10:20 way 10:19 ways 9:20 Wednesday 1:15 5:2 wells 1:7 5:11 8:14,20,21 8:23 9:2 10:18 12:15 12:22,24 14:17,18 15:8 West 1:13 3:9 we'll 7:21 12:1 17:4 we're 6:1 7:25 16:1 18:21 WITNESS 4:2 witnesses 6:16 7:19 15:19 16:5 17:22,24 Wolverine 1:5,7 3:1 5:6 5:10,24 6:6,7 9:23 10:12 11:6 words 9:12 Wozniak 3:2 5:17 W1/2 1:8 5:11</p> <hr/> <p style="text-align: center;">X</p> <hr/> <p>X 4:1 12:9,14 17:13</p> <hr/> <p style="text-align: center;">Y</p> <hr/> <p>Y 2:5 12:9 17:13 year 8:3 9:6</p> <hr/> <p style="text-align: center;">Z</p> <hr/> <p>Z 17:13 Zadick 4:5 6:5 9:9,23 10:15 11:6 12:5</p>
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A403309
DOCKET NO. 2010-010 CAUSE NO. 269-01

Zero 15:3				
<hr/>				
1				
1 1:8 5:12 8:22 9:1 13:20 14:9,19,24 15:4,7				
1040 1:13				
14 12:18 13:7				
15 7:16				
1594 1:13 3:9				
160 13:12,14,16				
160,000 9:25 13:15				
<hr/>				
2				
2 13:9 14:20 15:2,3				
20 1:8 5:12				
2010 1:15 5:2				
2010-010 1:11 5:1,5				
221 13:5				
2389 13:5				
24 1:8 5:11				
24-1 1:7 5:10 13:5,8 14:20 15:2				
24-4 1:7 5:11 13:3				
248,619 12:17				
25,522 12:16				
26 9:6				
265 13:3				
269-01 1:11 5:1,5				
<hr/>				
3				
300 3:10				
360,000 8:14 9:4				
<hr/>				
4				
4:48 1:16				
4:58 5:3				
43 13:4				
46 13:3				
<hr/>				
5				
5:12 15:16				
5:15 15:16				
5:18 1:16 18:22				
525 3:3				
538-7200 3:11				
566-8446 3:4				
<hr/>				
6				
6 13:6				
60 9:24 10:2,24 13:11 15:9 16:2,3				
6925 3:3				
<hr/>				
7				
7699 12:17				
<hr/>				
8				
8 1:15 5:2				
801 3:4,11				
82 14:11				
84047-6003 3:4				
84116 3:10				
<hr/>				
9				
9 5:4				